

W5YI

America's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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...and much much more!*

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Swap of Ham Operators Highlights STS-81 Shuttle Mission

The U.S. shuttle Atlantis lifted off from NASA's Kennedy Space Center launch pad 39-B at 3:27 a.m. C.S.T.(9:27 GMT) on Sunday, January 12th with a crew of six aboard. The on-time launch of mission STS-81 is the first of eight Shuttle flights planned for 1997. The last mission of the year will be the first in a series to assemble the NASA-led international space station.

STS-81 is the 18th flight of Atlantis and, coincidentally, the 81st mission flown since the start of the Space Shuttle program in April 1981. STS-81 is also the fifth of nine planned missions to Mir, the Russian space station and the second one involving an exchange of U.S. astronauts.

Atlantis' docking with the Mir began with the precisely timed launch setting the orbiter on a course for rendezvous with the orbiting Russian facility. Periodic firings of Atlantis' small thruster engines gradually brought the Shuttle within range of Mir. The combined mass of the two linked spacecraft is 250 tons!

Astronaut John Blaha, KC5TZQ who had been on Mir since September 19, 1996, was replaced by astronaut Jerry Linenger ...also a ham radio operator. Linenger KC5HBR, a 41-year-old Navy Captain and medical doctor is scheduled to spend more than four months on Mir where he will perform more than 80 scientific experiments.

The eight member crew aboard Mir and STS-81 also transferred more than 3 tons of food, water, supplies and equipment to and from the Mir,

the largest transfer of items to date.

Linenger is the fourth U.S. astronaut to live aboard Mir as part of a NASA effort to learn more about the effects of long duration space flight on the human body. The STS-81 Atlantis mission lasted 10 days, five of them docked to Mir.

Like John Blaha, Linenger is expected to make many random ham radio contacts with the amateur community before his return.

The STS-81 crew is commanded by Michael A. Baker who is making his fourth Shuttle flight. There are four mission specialists and a pilot assigned to this flight. STS-81 was not a SAREX flight. To involve the public, however, one of the mission specialists, John M. Grunsfeld, posted informal daily "chatty" reports of Atlantis progress to the Internet (at <http://shuttle.nasa.gov/>) in what he called "The Grunsfeld Report."

Linenger will work with the Mir 22 crew until the arrival of Mir 23 cosmonauts Vasili Tsibliev, Aleksandr Lazutkin and German researcher Reinhold Ewald in early February 1997. After the Mir 22 crew and Ewald return to Earth in a Soyuz, Linenger will complete his tour with the Mir 23 crew. In March, Linenger will become the first American astronaut to join a Russian cosmonaut in a spacewalk outside of Mir.

Linenger will return to Earth on Space Shuttle Mission STS-84 and will be replaced by NASA Astronaut Mike Foale, KB5UAC when Atlantis again docks with Mir in May 1997.

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STS-83 TO BE NEXT SAREX MISSION

The next scheduled SAREX mission is planned for March 27, 1997 at 1:19 p.m. CST. The Shuttle Columbia will liftoff from Kennedy Space Center's launch pad 39A on a 16 day mission.

Seven crew members will operate the primary payload, the Microgravity Science Laboratory. Included on the crew is Commander Jim Halsell KC5RNI, and Mission Specialists: Janice Voss KC5BTK and Donald Thomas KC5FVF. All are making their third Shuttle flight.

ARRL BOARD OF DIRECTORS ANNUAL MEETING

The ARRL Board of Directors met in annual session, January 17 and 18, 1997, at Albuquerque, New Mexico. Here is a summary of the meeting highlights:

- Responding to survey results that show that the majority of members favor retention of Morse code for HF operating privileges as an international treaty obligation, the Board decided that the ARRL will not support changing the existing treaty requirement, an issue on the WRC-99 agenda. The Board also accepted other committee recommendations regarding the international rules that govern the amateur and amateur-satellite services.

- A committee proposal for modifications to the FCC amateur licensing structure is to be published shortly in QST. Members will be invited to comment to their Directors before May 31, 1997. The Board will not take action on the committee recommendations earlier than the July meeting of the Board, to afford members an opportunity for discussion and comment. (See page 7)

- Noting the increasing number of participants in the spectrum management process, the Board created the ARRL Spectrum Forum, an electronic mail roundtable for national amateur organizations, as well as regional entities and interests. The ARRL Spectrum Committee was dissolved with the thanks of the Board.

- Dr. Robert C. Smithwick, W6JZU, and Mr. Ken Kirk-Bayley, GJ0KKB, co-founders of MediShare International, a program of the Medical Amateur Radio Council, won the ARRL International Humanitarian Award for 1996.

- James Jacobs, K1GHT, was tabbed for the ARRL Certificate of Merit in recognition of his lifetime of humanitarian service and goodwill through Amateur Radio. Michael Pilotti, N3IRZ, also won an ARRL Certificate of Merit in recognition of his arranging for the travel of Ukraine radio amateur Nick Bortnick, UX0ZZ, to the US for special medical assistance.

- The League's Executive Committee was tasked with studying the adequacy of FCC rules governing the qualifications of Volunteer Examiners, particularly with

respect to those VEs who have obtained license upgrades by means of Morse code element credit waiver provisions. The Executive Committee was also tasked with investigating the extent of abuses of the Morse code exam waiver provisions for applicants with severe handicaps, and recommend any regulatory changes deemed necessary.

- The Membership Services Committee was directed to study ways to better serve the digital community.

- Atlantic Division Director Kay Craigie, WT3P, Northwestern Division Director Mary Lou Brown, NM7N, Southeastern Division Director Frank Butler, W4RH, and Southwestern Division Director Fried Heyn, WA6WZO, were elected to the Executive Committee.

- Roger Franke, K9AYK, Tom Comstock, N5TC, and Tom Frenaye, K1KI, were re-elected to the ARRL Foundation Board of Directors.

- ARRL will establish an Alternative Dispute Resolution service for the use of individual amateurs, amateur organizations, citizens, organizations and others having disputes over Amateur Radio related subjects.

Full details will appear in March QST.

ARRL FILES REPLY COMMENTS ON TEMPORARY LICENSING OF VISITING FOREIGN AMATEURS

On January 13th the League filed Reply Comments on the FCC's Notice of Proposed Rule Making seeking to implement two existing international agreements that will lead to allowing amateurs of different countries to temporarily operate in other countries without formal licensing.

The ARRL said that there have been no comments filed which oppose simplifying foreign amateur access to the ham bands while on visits to the United States. The two programs under consideration are the IARP (CITEL International Amateur Radio Permit) and the CEPT (European Conference of Postal and Telecommunications Administrations) Conventions. The IARP is somewhat similar to an international driver's license while the CEPT license allows nations to compare their licenses to two CEPT (all band with code and VHF-UHF without code) classes.

The current status of the CEPT program is that the U.S. Dept. Of State and the FCC's international Bureau have written the European Radiocommunications Office (ERO) requesting that the United States be permitted to participate as a non-CEPT member. The League believes that it will take several months for this process to take place which will allow the FCC sufficient time to finalize the necessary regulations.

The Commission is urged to adopt an Order so that there is no delay once the approval is received. Canada is one of the four nations that have already joined the non-CEPT arrangements. And six nations have signed

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Morse Code and the Future of Ham Radio

One of the controversies raging within ham radio right now is whether the Morse code should be removed as a prerequisite for obtaining operating privileges below 30 MHz. "Working Papers" authored some time ago by FCC researchers (who were also ham radio operators) came to the conclusion that "...the rules that exist today do far less than they could to encourage amateur ingenuity ...and in some cases, regulation may positively have discouraged technical progress. ...an impartial observer might suggest that a Morse code proficiency requirement be related to operation only in those frequency bands reserved for Morse Code operation."

OPP (1986) Working Paper No. 20 mentions that "...those who have attained the higher license classes with some level of difficulty would naturally object to rule changes that would have the effect of making access to their operating privileges easier. This attitude, while understandable, is nevertheless unreasonable... Another obstacle to worthwhile re-regulation may be based on the belief of current licensees that otherwise inappropriate barriers to access should be retained in order to inhibit frequency congestion. ...The examination elements for each license class should be reviewed to insure that required skills correlate with operating privileges. Any unnecessary requirements that may constitute a barrier to entry should be eliminated." From our vantage point, it appears that the code requirement does not really exist as a needed skill, but as a way to keep the number of users low and manageable.

Hal Offutt, W1NN (ex-K8HVT) of Darien, CT also holds the Japanese call sign of 7J1AAI. Hal has been involved in Japanese ham radio for more than two decades. As evidenced by his web page, he is a staunch supporter of retaining the code, period! I do not necessarily agree with some of his comments, but they are well written and make interesting reading.

Japan was the first country in the world to have no code licensing. It begun in 1959. It's 4th Class operator license permits 10 watts on the 80 and 40 meter bands ...and the ham bands above 21 MHz (15 meters.) Twenty watts is permitted above 50 MHz. While the international Radio Regulations require code proficiency when operating on the ham bands below 30 MHz, Japan ignores his regulation. While not true, its official position is that the low power only permits domestic operation.

The Japanese 4th Class license has been unbelievably successful. The number of operators has been increasing by about 150,000 a year ...to the point where there are now nearly 2.7 million licensed 4th Class operators. Ninety-two percent of all Japanese amateurs hold this class. There are approximately 1.14 million Fourth Class station licenses at present85% of all total amateur stations in Japan. (See chart on next page)

There are two methods for Japanese citizens to

obtain an Amateur radio license. The First and Second Class license requires passing the national radio operators' certificate examinations. The Third and Fourth Class operator licenses may also be obtained by taking a Japan Amateur Radio Development Association training course. Established in 1991, JARD's course consists of a total of 14 hours of lectures, with six hours on radio theory and eight hours on regulations. The course exam is held on the final day and those who pass this exam are exempted from taking the national exam and receive their operator license. The JARD charges the equivalent of about \$210 for this course.

Requirements for the Japanese Amateur Licenses:

First Class Amateur Radio Operator license:

Japanese language code receiving at 10 wpm (50 char./min.)
English plain language code receiving at 12 wpm (60 char./min.)
Written exam on radio regulations, operations and technology.
Privileges: Up to 500 watts output power on all HF amateur bands. (VHF and higher bands have lower power restrictions.)

Second Class Amateur Radio Operator license:

English language code receiving at 9 wpm. (45 char./min.)
Written exam on radio regulations, operations and technology.
Privileges: Up to 100 watts on HF bands. (Lower on higher bands)

Third Class (Telegraph) Amateur Radio Operator license:

English language code receiving at 5 wpm. (25 char./min.)
Written exam on radio regulations, operations and technology.
Privileges: Up to 25 watts output power on HF bands above 18 MHz and below 8 MHz. (i.e. all bands except 10 and 14 MHz.)

Fourth (Telephone) Class Amateur Radio Operator:

Either national exam on amateur radio regulations, technology, operations and equipment or completion of JARD training course.
Privileges: Up to 10 watts antenna power on HF frequencies above 21 MHz and below 8 MHz (i.e. all bands except the 10, 14 and 18 MHz bands.) 20-watts on 6 and 2 meters.

Japanese amateur radio operator licenses are valid for life. Once an operator license is obtained, the amateur may apply to the Ministry of Posts and Telecommunications (MPT) for a 5-year term station license. The applicant must state the equipment he will use (it must be an approved rig), which bands, modes and output power he plans to use, and other details which is printed on the license. If new equipment is acquired, the licensee must submit an application for a revised station license.

According to Hal Offutt, the success of the no-code license in Japan is only half the story. He says the bands suffer from "...terrible band crowding and interference problems, a high drop out rate, little upgrading, little public service and a terrible public image." And he believes that the Japanese model "...provides a case study of what I believe would happen elsewhere." He says that the Japanese Amateur Radio rules have been designed to foster the development of the equipment industry at the sacrifice of the hobby itself. "The requirement that amateurs know CW in order to operate on the HF frequencies ensures that only individuals with a serious

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Amateur Radio Operator and Station Licenses in Japan

| Mar. 31 Year | Operator Licenses | | | | Total Operators | Total Stations | Mar. 31 Year | Operator Licenses Increased | | | | Total | Total Stations | Stations Increased |
|--------------------|----------------------|--------|---------|-----------|--------------------|-------------------|--------------------|--------------------------------|-------|--------|---------|---------|-------------------|-----------------------|
| 1st | 2nd | 3rd | 4th | | | | 1st | 2nd | 3rd | 4th | | | | |
| 1952 | 73 | 106 | | | 179 | | 1952 | | | | | | | |
| 1953 | 221 | 689 | | | 910 | 193 | 1953 | 148 | 583 | | | 731 | 193 | |
| 1954 | 353 | 2,695 | | | 3,048 | 1,045 | 1954 | 132 | 2,006 | | | 2,138 | 1,045 | 852 |
| 1955 | 507 | 4,441 | | | 4,948 | 2,511 | 1955 | 154 | 1,746 | | | 1,900 | 2,511 | 1,466 |
| 1956 | 795 | 4,982 | | | 5,777 | 3,322 | 1956 | 288 | 541 | | | 829 | 3,322 | 811 |
| 1957 | 1,142 | 5,399 | | | 6,541 | 3,679 | 1957 | 347 | 417 | | | 764 | 3,679 | 357 |
| 1958 | 1,322 | 7,332 | | | 8,654 | 4,516 | 1958 | 180 | 1,933 | | | 2,113 | 4,516 | 837 |
| 1959 | 1,436 | | | 8,304 | 9,740 | 5,838 | 1959 | 114 | | | | 114 | 5,838 | 1,322 |
| 1960 | 1,546 | 1,750 | 645 | 16,136 | 20,077 | 8,538 | 1960 | 110 | | | 7,832 | 7,942 | 8,538 | 2,700 |
| 1961 | 1,616 | 2,438 | 1,361 | 24,482 | 29,897 | 15,431 | 1961 | 70 | 688 | 716 | 8,346 | 9,820 | 15,431 | 6,893 |
| 1962 | 1,685 | 2,948 | 2,107 | 29,638 | 36,378 | 20,262 | 1962 | 69 | 510 | 746 | 5,156 | 6,481 | 20,262 | 4,831 |
| 1963 | 1,714 | 3,434 | 2,837 | 37,156 | 45,141 | 25,440 | 1963 | 29 | 486 | 730 | 7,518 | 8,763 | 25,440 | 5,178 |
| 1964 | 1,772 | 4,412 | 3,743 | 46,657 | 56,584 | 31,010 | 1964 | 58 | 978 | 906 | 9,501 | 11,443 | 31,010 | 5,570 |
| 1965 | 1,859 | 5,036 | 4,826 | 58,758 | 70,479 | 38,438 | 1965 | 87 | 624 | 1,083 | 12,101 | 13,895 | 38,438 | 7,428 |
| 1966 | 1,963 | 5,691 | 6,467 | 68,720 | 82,841 | 45,032 | 1966 | 104 | 655 | 1,641 | 9,962 | 12,362 | 45,032 | 6,594 |
| 1967 | 2,077 | 6,891 | 8,341 | 86,334 | 103,643 | 53,048 | 1967 | 114 | 1,200 | 1,874 | 17,614 | 20,802 | 53,048 | 8,016 |
| 1968 | 2,246 | 7,743 | 10,434 | 109,036 | 129,459 | 66,365 | 1968 | 169 | 852 | 2,093 | 22,702 | 25,816 | 66,365 | 13,317 |
| 1969 | 2,447 | 8,932 | 12,864 | 138,986 | 163,229 | 83,224 | 1969 | 201 | 1,189 | 2,430 | 29,950 | 33,770 | 83,224 | 16,859 |
| 1970 | 2,672 | 10,500 | 15,823 | 176,267 | 205,262 | 105,933 | 1970 | 225 | 1,568 | 2,959 | 37,281 | 42,033 | 105,933 | 22,709 |
| 1971 | 2,905 | 11,679 | 20,035 | 222,036 | 256,655 | 136,914 | 1971 | 233 | 1,179 | 4,212 | 45,769 | 51,393 | 136,914 | 30,981 |
| 1972 | 3,134 | 13,335 | 24,620 | 274,181 | 315,270 | 180,268 | 1972 | 229 | 1,656 | 4,585 | 52,145 | 58,615 | 180,268 | 43,354 |
| 1973 | 3,558 | 15,214 | 28,218 | 322,482 | 369,472 | 213,335 | 1973 | 424 | 1,879 | 3,598 | 48,301 | 54,202 | 213,335 | 33,067 |
| 1974 | 4,229 | 18,000 | 33,565 | 388,197 | 443,991 | 246,514 | 1974 | 671 | 2,786 | 5,347 | 65,715 | 74,519 | 246,514 | 33,179 |
| 1975 | 4,763 | 20,112 | 36,837 | 437,596 | 499,308 | 286,247 | 1975 | 534 | 2,112 | 3,272 | 49,399 | 55,317 | 286,247 | 39,733 |
| 1976 | 5,356 | 22,279 | 41,144 | 494,336 | 563,115 | 320,304 | 1976 | 593 | 2,167 | 4,307 | 56,740 | 63,807 | 320,304 | 34,057 |
| 1977 | 5,956 | 25,168 | 45,027 | 546,677 | 622,828 | 341,018 | 1977 | 600 | 2,889 | 3,883 | 52,341 | 59,713 | 341,018 | 20,714 |
| 1978 | 6,755 | 27,672 | 48,673 | 603,201 | 686,301 | 364,091 | 1978 | 799 | 2,504 | 3,646 | 56,524 | 63,473 | 364,091 | 23,073 |
| 1979 | 7,334 | 30,216 | 51,761 | 655,555 | 744,866 | 399,915 | 1979 | 579 | 2,544 | 3,088 | 52,354 | 58,565 | 399,915 | 35,824 |
| 1980 | 7,902 | 32,935 | 55,106 | 725,847 | 821,790 | 442,105 | 1980 | 568 | 2,719 | 3,345 | 70,292 | 76,924 | 442,105 | 42,190 |
| 1,981 | 8,596 | 35,308 | 58,512 | 802,960 | 905,376 | 485,530 | 1981 | 694 | 2,373 | 3,406 | 77,113 | 83,586 | 485,530 | 43,425 |
| 1982 | 9,267 | 37,840 | 61,984 | 891,688 | 1,000,779 | 523,021 | 1982 | 671 | 2,532 | 3,472 | 88,728 | 95,403 | 523,021 | 37,491 |
| 1,983 | 9,824 | 39,835 | 65,258 | 974,646 | 1,089,563 | 550,338 | 1983 | 557 | 1,995 | 3,274 | 82,958 | 88,784 | 550,338 | 27,317 |
| 1,984 | 10,430 | 41,559 | 67,753 | 1,057,163 | 1,176,905 | 574,581 | 1984 | 606 | 1,724 | 2,495 | 82,517 | 87,342 | 574,581 | 24,243 |
| 1985 | 11,036 | 43,425 | 70,372 | 1,145,331 | 1,270,164 | 596,953 | 1985 | 606 | 1,866 | 2,619 | 88,168 | 93,259 | 596,953 | 22,372 |
| 1986 | 11,548 | 45,108 | 78,934 | 1,232,493 | 1,368,083 | 703,204 | 1986 | 512 | 1,683 | 8,562 | 87,162 | 97,919 | 703,204 | 106,251 |
| 1987 | 12,070 | 46,749 | 84,399 | 1,327,895 | 1,471,113 | 749,414 | 1987 | 522 | 1,641 | 5,465 | 95,402 | 103,030 | 749,414 | 46,210 |
| 1988 | 12,615 | 48,224 | 89,313 | 1,457,976 | 1,608,128 | 825,153 | 1988 | 545 | 1,475 | 4,914 | 130,081 | 137,015 | 825,153 | 75,739 |
| 1,989 | 13,159 | 49,803 | 94,288 | 1,601,668 | 1,758,918 | 916,904 | 1989 | 544 | 1,579 | 4,975 | 143,692 | 150,790 | 916,904 | 91,751 |
| 1,990 | 13,581 | 51,775 | 98,895 | 1,760,072 | 1,924,323 | 1,027,101 | 1990 | 422 | 1,972 | 4,607 | 158,404 | 165,405 | 1,027,101 | 110,197 |
| 1991 | 14,003 | 54,675 | 114,026 | 1,919,683 | 2,102,387 | 1,101,431 | 1991 | 422 | 2,900 | 15,131 | 159,611 | 178,064 | 1,101,431 | 74,330 |
| 1992 | 14,703 | 57,530 | 117,952 | 2,090,520 | 2,280,705 | 1,203,226 | 1992 | 700 | 2,855 | 3,926 | 170,837 | 178,318 | 1,203,226 | 101,795 |
| 1,993 | 15,160 | 60,416 | 123,040 | 2,253,482 | 2,452,098 | 1,283,185 | 1993 | 457 | 2,886 | 5,088 | 162,962 | 171,393 | 1,283,185 | 79,959 |
| 1994 | 15,771 | 63,101 | 128,164 | 2,407,670 | 2,614,706 | 1,325,527 | 1994 | 611 | 2,685 | 5,124 | 154,188 | 162,608 | 1,325,527 | 42,342 |
| 1995 | 16,382 | 66,025 | 132,580 | 2,550,918 | 2,765,905 | 1,364,316 | 1995 | 611 | 2,924 | 4,416 | 143,248 | 151,199 | 1,364,316 | 38,789 |
| 1996 | 16,867 | 68,187 | 136,338 | 2,659,041 | 2,880,433 | 1,350,127 | 1996 | 485 | 2,162 | 3,758 | 108,123 | 114,528 | 1,350,127 | (14,189) |

Source: The Japan Amateur Radio League, Inc.

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interest in radio communications are allowed on these valuable bands."

Code requirement to be considered at WRC-99

Offutt is very concerned about the upcoming IARU position at WRC-99 that deals with the Amateur Services. One of the international Radio Regulations (S25.5) requires that all amateurs demonstrate Morse code ability to be licensed to operate below 30 MHz.

"The [IARU's] FASC (Future of the Amateur Service Committee) ...has already decided that Morse Code should no longer be part of the international radio regulations." They concluded "World Radiocommunication Conference agendas are very crowded. ...It is unrealistic to expect that Article S25, having been placed on the agenda for WRC-99, will again be reviewed at another conference in the foreseeable future. Any changes to Article S25 that may be desirable in the next decade or two, must be considered now. ...On that basis, the Committee has concluded that S25.5 should be removed as a treaty obligation of administrations." Offutt does not go along with this reasoning.

The Japanification of U.S. Amateur Radio

"The FASC was a creation of the IARU, but each IARU member society of must also make a determination of its position on S25.5. Our amateur society is the ARRL, and at the January 1996 board of directors meeting ARRL President Rodney Stafford was authorized to created a committee to study this issue and make recommendations on ARRL policy positions vis-a-vis the ...At the July board of directors meeting, the Committee submitted a report of its activities." Here are a few quotes from this report:

The committee was unable to identify a strategy or tactic which could be used to avoid a discussion of Article S25.5 and possible change to the Article. Such change would remove the code requirement. As an organization the ARRL has the option of going on record against such a change and of seeking support by our Government and by a majority of IARU members for such a position. However, we have been privately advised that Canada, United Kingdom, Germany and Japan have indicated that they are not intending to take such position. The national amateur organizations of those countries believe that their Administrations are not interested in continued support of this Treaty requirement.

Further, it was observed that the administrations of many of the smaller countries feel staffing and operations in support of the Treaty requirement is a poor use of their scarce resources. The previous arguments by IARU in favor of retaining the Treaty requirement are not viewed as sufficient to cause the government representatives to the ITU to continue S25.5 as written.

As a result, it is anticipated that many of the under developed (sic) countries will be supportive of deleting this provision. In a one country, one vote context it seemed probable that the Treaty requirement would be eliminated.

The report then went on to say that the committee consensus was "that if S25.5 were to be deleted by ITU action, then ARRL (through IARU) should seek to have S25.6 modified to add the following text as the last sentence of that item: "Licensing requirements in

respect of sending and receiving Morse code signals are left to the discretion of each administration." Such a phrase would signal to administrations that Morse code capability remains a desirable skill for amateur radio operators.

The Consequences

Offutt maintains, "The shocking thing about both the FASC discussion paper and the WRC-99 Planning Committee report (as well as with the resolution of the Board of Directors at the January meeting) was that nowhere was there any consideration of what the consequences of eliminating the code requirement might be."

What Ham Radio is Like in Japan

"Amateur radio in Japan is basically unrecognizable to an American. ...basically the system has been created expressly for the purpose of licensing great numbers of people and selling a lot of equipment. Japan has licensed 2.8 million amateurs. ...the vast majority of these ...licensees have received their licenses over the last 20 years.

"Since the station license is valid for only five years, this gives us a better idea of the number of active amateurs in Japan. ...this is still twice the number of U.S. amateurs. ...We need to ask what happened to the other 1.5 million so-called hams. The answer is that they have dropped out of the hobby after trying it for a short time ...it harms the hobby to make it too easy to get a license. [and] gives it a reputation as being a simple-minded, pursuit, and it makes the bands far too crowded."

Designed to Help the Manufacturers

"The Japanese ham radio system has very clearly been designed to foster the growth of the equipment industry, something that it has been tremendously successful at. ...The JARL is basically an extension of the Japanese Ministry of Posts and Telecommunications and both bodies function primarily to make it easy for the manufacturers to sell radio equipment.

"How large is the Japanese amateur radio equipment industry? ...we estimate that the total sales worldwide sales of Japanese amateur radio equipment in 1995 was in the neighborhood of \$350 million. (Kenwood \$100 million, Icom \$77 million, Yaesu Musen \$65, Marantz (Standard) \$35 million, Alinco \$25 million, Others \$50 million.) This is a very rough estimate, but we believe that, if anything, we have erred on the conservative side. Inasmuch as sales for most of the companies declined sharply in 1995, it appears that industry sales were probably in the \$400-450 million range during 1994."

Shocking Conditions on the Bands

"The real problems occur on the ham bands. Jamming, broadcasting, interference, illegal operation and on-the-air fights are commonplace. Six meters and two

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meters are the worst bands and are practically unusable. There is a serious problem in the Osaka region of Japan with gangsters illegally using the bands and trying to extort money from legitimate hams for using certain frequencies. Nationwide, there is a big problem with truckers using two meters illegally."

"While the 220,000 Japanese hams who have passed the Morse code are generally first-rate hams by anyone's standards, most of the others are essentially citizen's banders who have been allowed on the ham bands and have earned for the hobby a very bad reputation. Most of the higher license class hams agree with this assessment, have very low regard for the JARL and the Japanese system, and are greatly envious of the U.S. system."

What Will Happen if We Follow Japan

The main thing that is saving us from a fate like Japan's is our Morse code requirement. This limits the people on the bands to those who really have a serious interest in radio communication."

"What would the ham bands be like if there were so many million stations trying to use them? The answer is obvious. There would be fighting, bickering, frequency wars, and worse. The bands would be unusable for emergency communications, for ragchews, for DXing, for anything. The public image of amateur radio would plummet. We would be endangering the very basis of our hobby - to be prepared to provide public service and emergency communications to our communities.

"And it all hinges on retention of the CW requirement in the international regulations. For once this is gone, the pressure will be too great on the radio authorities in most countries to eliminate their own CW requirements. We will have set the stage for the Japanification of amateur radio not just in the U.S. but worldwide. Kenwood, Yaesu and Icom will be ecstatic, but our hobby will be ruined, just like it is in Japan."

"What does the Japanese experience tell us about our own Technician Class? First, it tells us that a substantial number of these folks probably will not continue in the hobby over the long term because they may not be real hams at heart. After all, not everyone is meant to be a ham! Second, some are concerned that the Technicians are not joining the ARRL, but I believe that this is only natural. In Japan, JARL membership as of July, 1996 was 164,621 (151,548 regular, 12,221 family and 852 SWL members), this out of 1.4 million stations!"

[Editorial comment: I do not agree that a majority of Japan's 4th Class licensees are bad for the hobby ...no more than I believe that Amateurs with Morse code proficiency are good ham citizens. I see very little difference in the quality of U.S. "No-code" and "Know-Code" licensees. There are good and bad "apples" in every barrel. Hal Offutt, W1NN feels very strongly, however, that Morse code proficiency somehow filters out the less desirable. That has not been my experience. It does, however, keep the "numbers" low. Question: Is low band occupancy a good idea for the 21st Century? I don't think so.]

ARRL ON ABOLISHING THE CODE REQUIREMENT

In January 1996, the ARRL Board of Directors agreed to form an ad hoc committee to determine if any changes should be made to the international regulations governing the Amateur Service "...to meet the challenges of the 21st century."

The committee was named by League President Rod Stafford last March. The nine person committee consisted of:

ARRL WRC-99 Planning Committee

Chairman **Tod Olson K0TO**, Long Lake, MN

(ARRL Dakota Division Director),

Steve Mendelsohn (now W2ML), Dumont, NJ

(ARRL First Vice President)

Lew Gordon K4VX, Hannibal, MO

(ARRL Midwest Division Director)

Fried Heyn WA6WZO, Costa Mesa, CA

(ARRL Southwestern Division Director)

Greg Milnes W7AGQ, Hillsboro, OR

(ARRL Northwestern Division Vice Director)

Dave Sumner K1ZZ, Coventry, CT

(ARRL Executive Vice President)

Also included were ARRL members:

Ken Kopp K0PP (a member of the League's No-Code Committee of a few years ago - Anaconda, MT),

Tuck Miller KC6ZEC (Technician, Lincoln Acres, CA)

Glen Whitehouse K1GW (a sales executive with Cushcraft Corp. from Amherst, NH.)

The committee developed an opinion survey of ARRL members which was conducted by a nationally recognized research firm. The results indicated that:

1.) "It is important to retain the Morse code requirement in the international regulations." **ARRL members agreed:** 2-to-1, non-members: 5-to-4. The Technician Class, however, did not support CW retention.

ARRL members agreed that:

- 2.) "Each country should be able to make up its own mind whether to have a Morse code requirement or not."
- 3.) "The Morse code is still important because it helps amateurs communicate across language barriers."
- 4.) "More code helps ensure that radio amateurs are disciplined operators."

ARRL members disagreed that:

- 5.) "The Morse code is a good thing to know, but it should not be a licensing requirement."
- 6.) "Knowing the Morse code just isn't important anymore."

ARRL members were pretty much evenly split on:

- 7.) If the rules for Amateur radio were being written for the first time today, there would not be an international requirement of Morse code ability for access to the HF bands.

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ARRL WRC-99 PLANNING COMMITTEE REPORT

The following report which was apparently initially broadcast over an amateur Ten-Ten network was posted to the Internet by Tuck Miller, KC6ZEC. Tuck was one of the nine committee members of ARRL's WRC-99 Planning Committee so one would have to believe that it is accurate. Tuck's report discusses the yet to be released Final Report to the ARRL Board. In Tuck's report is a suggested restructuring of the Amateur Service.

This restructuring proposal is only a suggestion to the Board by the WRC-99 Planning Committee. ARRL members will get to comment. But it certainly should not be taken lightly! It is especially significant is that two-thirds of the Planning Committee is composed of very high level ARRL leadership. (2 Vice Presidents, 3 Division Directors and a Vice Director.)

The following is a VERBATIM QUOTE from Tuck's report:

"Greetings to all fellow Ten-Ten-ers. I had the privilege of serving on WRC99, a committee of the American Radio Relay League (ARRL). We discussed several facets of Amateur Radio, and we recommended to the ARRL Board of Directors our thoughts and ideas. I might add this was not done hastily, as we were appointed in March of 96, and we gave our final report in December.

"As most of you know we also published a survey that appeared in QST. For those of you who responded, we thank you. One of the most controversial subjects was whether to retain the Morse code requirement for HF operation. As most of you have probably already heard, the committee recommended that the cw requirement remain in place.

"Other structural changes in the classes of Amateur Radio were also discussed, and we have recommended what we feel is a win-win situation for all. We do hope you will agree. The full report will be published in a future edition of QST, and your input will be greatly appreciated. Now on to my version of our report:

"Future of Amateur Radio - The following is a brief synopsis of what the WRC99 committee recommended to the ARRL Board of Directors for changes in the Amateur Radio licensing structure, and privileges associated with each class of license. The Board of Directors has received the report, and it will be published in a future edition of QST. Readers will be able to provide their input on the committee's recommendation. Please remember, that this is not an official release, but a preliminary at best.

"The committee recommends that the present Novice Class be eliminated. (All emphasis by W5YI) Most new licensees come into the service via the Technician class. **Present Novice licensees would be given the opportunity to take an open book test given by an accredited VE team to afford them the**

opportunity to upgrade to what is now the Technician Plus license.

"The present Technician class license would be renamed the Basic license, while the present Technician Plus license would be renamed the Intermediate license.

PRIVILEGES WOULD BE GREATER for each class of license above the Basic license.

"Extra class operators would gain the following frequencies for phone: 3700-3750, 7125-7150, and 21150-21200 kHz.

"Advanced Class would gain 3725-3775, 7125-7150, 21150-21225 kHz.

"Generals would get additional phone at 3800-3850, 7200-7225, 21250-21300 kHz.

"Each of these classes would pick up an additional 50 kHz of phone band on 75 and 15 meters, and 25 kHz on 40 meters. The committee also noted that this return General Class licensees to their pre-1968 phone band limits on 75, 40, and 15 meters.

"Large changes are for the proposed Intermediate license, now known as the tech plus license.

The proposed Intermediate Class

- CW privileges would be given on 160 meters, on 80 meters from 3525-3700, 40 meters, from 7025 to 7050, on 15, from 21025 to 21150, and on 10 meters from 28050 to 28300.
- Digital would be granted on 3600-3625, 21100-21125, and 28100-28189.
- Voice privileges would be allowed on 1950-2000, 3900-4000, 21350-21450, and additional 10 meters at 29500-29700 FM.
- Morse code would be slightly modified for the General class, reducing code speed to 10 wpm. Extra would be the same, and the Committee recommends that 5 wpm be retained for entry into the HF bands.
- Examinations would be revised to include a sending test, and would return to the previous requirement of 1 minute of solid copy out of 5 minute receiving test period.

"The committee also expressed their concerns about perceived abuses of the handicapped waiver provision, and requests that steps be taken to reduce that opportunity.

"Once again, this is a brief synopsis of the full report that will be published in QST. 73, Tuck Miller, KC6ZEC." (End of Quote)

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the IARP Convention including Canada and the United States.

One of the issues still to be resolved, however, is the length of time that the IARP and CEPT temporary amateur document are to be valid. The CEPT recommendation specifies no term "...instead making references only to short visits" which is interpreted by the ERO to mean "...three or four months." The IARP Convention provides that the permit will be valid for one year in the visited country which can not be changed by the FCC since the term is set by treaty.

Noting that the CEPT and IARP licenses have the same effect as reciprocal licensing, the League urged that a one year period of validity be adopted for both so as "...not to allow those documents to substitute for a regular amateur license issued pursuant to examination in the case of a long-term visitor." In support of its position, the ARRL added, "That is the maximum term permitted for alien reciprocal permits here, and the term specifically provided for in the IARP Convention."

The FCC has said that it had no intention to regulate the issuance of IARPs, and indicated agreement with the League's plan to issue such to international travelers who are licensed radio amateurs and U.S. citizens who wish to travel overseas and operate pursuant to the IARP agreement.

The CEPT recommendation requires that certain information be contained on the license or alternative document including (a.) a declaration that the holder is authorized to operate in accordance with the CEPT Recommendation in countries where such applies; (b.) the call sign; (c.) the CEPT license class; (d.) the term of validity and; (e.) the name of the issuing authority in French, German and English.

The FCC has proposed that this be accomplished by the carrying of a Public Notice, the text of which would be in three languages. The ARRL believes that the Public Notice should also include the format of the FCC Form 660 license document with translations of the entire English language content of that form into French and German.

"...the issue of the license document and the accompanying public notice is perhaps best left to the United States Department of State, which is currently working with the ERO to firm up the United States' participation in the CEPT Recommendation, including the terms pursuant to which participating countries would recognize the U.S.' license documents."

The FCC has tentatively concluded that the all band/all privilege CEPT/IARP licenses equate to the U.S. Amateur Extra Class license and the Class 2 license equates to the no-code Technician Class. Therefore, that simple equivalency is proposed for use in the United States. "...the League wholeheartedly agrees..."

The ARRL concluded that since there have been

no objections in this proceeding, "The Commission should finalize the rules ...as proposed [except that the term] of validity of CEPT licenses and IARPs held by foreign citizens in the U.S. should carry a term of one year or during the term of the license issued by the home country of the holder, whichever is shorter."

ARRL TO TAKE NEW STEPS TO OBTAIN BETTER ENFORCEMENT OF THE AMATEUR BANDS

The American Radio Relay League is in the process of filing a Petition which seeks to increase the quantity and quality of FCC enforcement of the Amateur Radio regulations. The League is very dissatisfied with the speed and effectiveness of FCC field office enforcement of its rules ...especially in cases of some of the more serious Amateur Service violations.

According to the ARRL, their Amateur Auxiliary volunteers have been identifying and documenting serious violations, but there has been very little follow through on the part of the FCC.

The League has now decided to bypass the FCC's Compliance and Information Bureau (CIB) and Wireless Telecommunications Bureau (WTB) and hereafter take enforcement cases directly to the Chief, Administrative Law Judge of private sector complaints.

The petition will incorporate the following elements:

- 1.) Complaints of Amateur rule violations will establish that the violations alleged are willful, intentional and repeated and are of a nature that they seriously impede lawful amateur communications.
- 2.) The Complaint, and all supporting materials, will be submitted through the League to the Chief, Administrative Law Judge, who will make a threshold determination whether the Complaint and the incorporated evidence establishes a case.
- 3.) If the Complaint and supporting material is determined by the Chief, Administrative Law Judge to establish a prima facie case, the Complaint will be assigned to an Administrative Law Judge who will issue a Show Cause order addressed to the accused, and a hearing proceeding commenced in accordance with normal Commission procedures. The League will assist in the presentation of the case as necessary.
- 4.) In cases in which the accused is an Amateur licensee, the Wireless Telecommunications Bureau will be made a party to the proceeding. In cases in which the accused is not a licensee, the Compliance and Information Bureau will be made a party to each such proceeding.

Our understanding is that the Petition will be filed with the Commission within a couple of weeks and that the new enforcement procedure will begin shortly thereafter. If we understand correctly, this means that instead of the FCC starting the enforcement action, it will be initiated by the ARRL who will deal directly with the FCC's judicial branch. And it will be up to the ARRL (rather than the FCC's CIB or WTB) to convince the Chief, Administrative Law Judge of the merits of the case.

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AMATEUR RADIO TID-BITS

■ Two delays in the Vanity call sign system have temporarily put the program on hold.

1.) Due to a computer problem, the FCC was forced to temporarily suspend processing of vanity call sign applications. We spoke to a spokesman at Gettysburg this past week and were told that they found glitches in their computer program after receiving complaints from the amateur community.

The first shutdown occurred when the FCC discovered many call signs (mostly 2x2 and 2x3 format) that were apparently available and not assigned ...yet were not shown as assignable by the FCC's computer. The FCC now has resolved this programming "bug."

2.) The current holdup is that the FCC is still handling several hundred applications submitted in November that could not be routinely granted and hit the error list.

The last vanity call sign "update" (the process by which the FCC enters application requests into the Vanity call sign assignment computer) was on Dec. 18th for 610-V applications received between Nov. 7 and 30.

Once the FCC resolves the November applications that hit the error list, then they will "update" (begin routine processing of) vanity call sign applications received in December.

It is unknown at this time exactly how long this will take because the FCC does not yet know how many November received Form 610-V applications need to be worked on. "It could take a couple of weeks ...and it could take a couple of months," we were told.

The FCC does not want to begin processing of the December (or January) vanity call sign applications until the prior month's requests has been completed. It is a very time-consuming and labor-intensive job to manually resolve call sign requests that can not be routinely granted by the FCC's computer.

■ We received an e-mail from Jay S. Oka, JA1TRC/KH2J, Manager of the International Section at the Japan Amateur Radio League, Inc. (JARL). Through an error, the JARL neglected to include the 7th place standing of Canada in their "Hams Around The World" booklet which gives 1995 amateur population figures. "The total population of radio ama-

teurs in Canada in 1995 is 45,000 which is more than in (8) Russia 38,000, (9) Argentina and Italy 30,000 and (11) Brazil 27,000. May we ask you to mention Canada in your next publication giving above figures."

■ Glen Baxter, K1MAN is still trying to get his American Amateur Radio Association "for profit business" going. He recently sent out a mailing soliciting \$35 memberships. Under the section "Where your \$35 in dues goes" he indicates that 5% (\$1.75) of the dues goes to the AARA State Director and a 10% commission (or \$3.50) is paid to the membership sponsor or AARA Section Manager. "This is a good way to promote amateur radio as well as make some money in doing so," he says.

To qualify for AARA Section Manager appointment, you must recruit 3 other members plus 5 more new AARA members per year. Another Section Manager may be appointed if quotas are not met. AARA State Managers must recruit at least 3 Section Managers in their state plus 5 more new Section Managers per year. "A State Director can also be a Section Manager and therefore receive the entire 10% Section Manager commission plus the 5% State Director commission override or a total of 15%"

■ "Morsels" is the newsletter of the Morse 2000 Wireless Outreach which promotes the use of Morse code learning in rehabilitation and education. It is edited by Tom King, Ed.D., Associate Professor, Dept. Of Communication Disorders., Univ. of Wisconsin at Eau Claire. The organization will be holding their "First Morse 2000 World Conference" on Oct. 18 and 19, 1997 in Bloomington, MN. Individuals are invited to submit 60-minute presentation proposals. Further information is available from Debra King at 715/836-3980 or FAX 715/836-4846.

■ An interesting article appears in the December issue of "The Canadian Amateur" entitled "The Fracturing of Canadian Amateur Radio." TCA is the official journal of Radio Amateurs of Canada, their national ham radio society.

A 1990 restructuring divided the Canadian amateur community into two groups - those with and those without HF operating privileges. Very few Canadian "Basic" (no-code) amateurs are upgrading and "Much of the 'Know Code' proponent population averages at least 50 years of age. ...It is time that we realized that the future of the hobby is at risk unless we can

join these two disparate groups of radio amateurs together."

"In 1999, an official decision will be made regarding CW as an international treaty licensing requirement for HF operation. I am not naive enough to believe that we will never lose the CW requirement. This will occur very soon. Amateurs who do not believe this to be true are living in the 50's."

"Canadian Amateur Radio must address the following problems:

- creating interest in the HF bands for those with little HF experience or exposure;
- adequate safeguards with respect to operator quality and on-air conduct in all parts of the spectrum; and
- the loss of the tradition of "Elmering" as people are licensed more quickly and easily, often with little personal Amateur contact.

"HF band use will continue to be the abode of the aging oldtimer unless we can convince the "Basic" licensee that there is some value to HF operation. If we cannot, then it is clear that the future of the hobby lies in the digital modes and higher frequencies rather than "traditional" radio."

(Editorial by Rob Kauffman VE4GV)

■ "The DX Magazine" has changed hands again. Chod Harris sold the publication to Paul ND4X and Nancy KB4RGW Smith who have now passed it on to Carl Smith, N4AA who also publishes the QRZ-DX newsletter. (Carl also used to be circulation manager at QST.)

■ FISTS, the International Morse Preservation Society of more than 1600 members recently approved a declaration calling for restoring the telegraphy examination standards. The organization says the present multiple-choice option for demonstrating Morse Code proficiency to be "...at direct odds with preserving the Morse Code requirement for the Amateur Radio Service and inconsistent with the American Radio Relay League's unconditional support of the International Morse Code." FISTS "...encourages its membership who now serve as Volunteer Examiners to conduct traditional Morse Code examinations in which one minute solid copy of plain-text is required for demonstrating Morse Code proficiency at a given speed and encourages all who are or might be in a position to affect the issue, now or in the future, to maintain Morse Code proficiency as an international standard for licensing in the Amateur Radio Service."

Apparently the ARRL was listening, because this became the League position at their recent Board of Directors meeting.

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The wired world is shifting to wireless...

WIRELESS INTERNET ACCESS IS ON THE WAY!

The FCC has approved a plan that will make it cheaper for many individuals, schools and businesses to connect to the web or to each other. On January 9th, the Commission allocated microwave (1.9 GHz) spectrum for free and unlicensed high speed data communications over short one to three mile distances.

Since the frequencies would be unlicensed, users would not have to apply to a company for service. A downside is that the microwave frequencies can't penetrate buildings very well without outside antennas or amplifiers.

The new capability is the result of a petition filed by Apple Computer and an industry group composed of Lucent Technologies, Motorola and Northern Telecom. Apple wants to sell radio-equipped computers. The other firms are interested in providing wireless interfaces for existing PCS.

There are all sorts of applications. For example, classrooms could be connected to other via wireless links with only one computer having to be hooked to the Internet via a high speed telephone line. Small businesses could use the wireless links to form their own private network. Other possible uses would be to exchange e-mail, faxes and computer files among nearby buildings, offices, hospital rooms or campuses.

WIRELESS LOCAL TELEPHONE ACCESS

The massive Telcom Act of 1996 deregulates telecommunications by allowing companies to compete in rival markets. At first it looked like long distance telephone carriers would be using cable-TV wires to bypass the local phone company and link their service direct to consumers. But the interface devices have proved to be costly and cable operators naturally want to be paid to allow LD firms to sell their customers over their wirelines.

While there are initiatives toward that end underway, it now appears that wireless links will connect portable, mobile and base station users to the public switched telephone network (PSTN.)

The system being planned will be very similar to that used by the amateur VHF-UHF repeater network. Tiny hand-held radiotelephones will simply broadcast to a central telephone office switch antenna located on a tall building. Long distance telephone carriers paid more than \$16 billion in access fees to the local Bell operating companies last year. The new strategy allows low cost access to the telephone using public without paying any costly access fees at all. The local calling market is huge ...more than \$100 billion annually. AT&T plans to offer low-cost digital wireless "local loop" connections later on this year. And the same cordless transceiver can be used anywhere ...from home, while at the shopping mall or from your car.

WIRELESS CYBERSPACE NETWORK IS ON THE AIR

Did you know that there is already a real-time wireless web network in operation? The **AirMedia Live Internet Broadcast Network** (headquartered in Newport Beach, CA) delivers breaking news, weather reports, sports scores, entertainment information, interactive games, stock market updates and e-mail notifications from a variety of online sources right to your PC.

Using AirMedia's 'Cyberspace Doorbell Service' you can "chat" with other members or establish an Internet Phone. A telephone modem is not required. AirMedia Live utilizes paging and two-way narrowband personal communications (NPCS) frequencies at 900-MHZ.

The U.S. two-way radio paging industry has grown by more than 20% annually and is today a \$3 billion business. An increasing percentage of the information transmitted through these paging systems is coming from computerized sources, rather than from traditional telephone numeric keypad entry.

In late 1994, the FCC auctioned off a substantial range of additional channels for "advanced" services. These new (901-902, 930-931 and 940-941 MHz) frequencies, usually referred to as Narrowband PCS raised several hundred million dollars and touched off a race for new technology development, including digital voice paging with store-and-forward capability, two-way messaging, Internet connectivity, and more. Eventually you will be able to order lunch from your wristwatch.

Two-way NPCS is called the most important mobile communications development since the cellular telephone. Some applications include nationwide vehicle tracking, remotely updated billboards, vending machine control, automated utility meter reporting, remote credit card validation, and data-on-demand.

AirMedia's coverage includes more than 90% of the U.S. population. PageNet, the world's largest wireless messaging company with nearly 7 million subscribers provides the wireless network service.

Essentially, your AirMedia Live station "listens" to transmitted wireless data broadcast streams using a low cost PC radio receiver. The subscriber tells the service through a remote control device which information it wants. The result is a private video news service complete with your own customized sports and stock quotes.

The viewer's PC must be left on continuously. Imbedded URLs, the 'addresses' of the Internet, transmitted with each headline, message or news item provide a hot-link back to the Internet for more information through any browser. A red message light comes on the screen when an e-mail message is received.

AirMedia Live has a street price of under \$149.95 which includes a small wireless plug-and-play "Global Village NewsCatcher" receiver, an 8-bit PC card, an intuitive remote control ...and Windows 3.1 or Win95 software that allows viewers to customize the programming.